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Nota di bibliografia	Includes bibliographical references (p. [265]-282) and index.
Nota di contenuto	Frontmatter -- Contents -- Preface -- Notation -- Chapter One. Sesquilinear Forms, Associated Operators, and Semigroups -- Chapter Two. Contractivity Properties -- Chapter Three. Inequalities for Sub-Markovian Semigroups -- Chapter Four. Uniformly Elliptic Operators on Domains -- Chapter Five. Degenerate-Elliptic Operators -- Chapter Six. Gaussian Upper Bounds for Heat Kernels -- Chapter Seven. Gaussian Upper Bounds and Lp-Spectral Theory -- Chapter Eight. A Review of the Kato Square Root Problem -- Bibliography -- Index
Sommario/riassunto	This is the first comprehensive reference published on heat equations associated with non self-adjoint uniformly elliptic operators. The author provides introductory materials for those unfamiliar with the underlying mathematics and background needed to understand the properties of heat equations. He then treats Lp properties of solutions to a wide class of heat equations that have been developed over the last fifteen years. These primarily concern the interplay of heat equations in functional analysis, spectral theory and mathematical physics. This book addresses new developments and applications of Gaussian upper bounds to spectral theory. In particular, it shows how such bounds can be used in order to prove Lp estimates for heat,

Schrödinger, and wave type equations. A significant part of the results have been proved during the last decade. The book will appeal to researchers in applied mathematics and functional analysis, and to graduate students who require an introductory text to sesquilinear form techniques, semigroups generated by second order elliptic operators in divergence form, heat kernel bounds, and their applications. It will also be of value to mathematical physicists. The author supplies readers with several references for the few standard results that are stated without proofs.